

## CENTRAL ELECTRICITY REGULATORY COMMISSION

3<sup>rd</sup> & 4<sup>th</sup> Floor, Chanderlok Building, 36, Janpath,  
New Delhi-110001

### **Minutes of Meeting: Constitution of Expert Group to review “Indian Electricity Grid Code and other related issues”- 2<sup>nd</sup> Meeting thereof.**

1. Second meeting of Expert Group to review “Indian Electricity Grid Code and other related issues” was held on 17<sup>th</sup> June, 2019 at 2:30 pm in Upper Ground Floor, Conference Room, 36, Janpath, Chanderlok Building.
2. Shri S.R.Narasimhan, Director (System Operation), POSOCO was nominated to be part of Expert Group from POSOCO and he was co-opted as Member to the Expert Group. Nomination from CEA has not been received.
3. During the meeting, representatives of Greenko Energy Ltd, Suzlon Energy Ltd and SB Energy Private Limited presented their views/ suggestions and areas for review in existing Regulations. Further, they have requested time for filing the written submission
4. Representation by Greenko Energy Ltd.:  
The representative from Greenko emphasized on the following aspects:
  - Revisiting the Planning Code: The following suggestions were given:
    - Each state should assess and quantify the balancing requirements season wise
    - The forecasting must be done for all 8760 hours and should include load and RE forecasting
    - Aggregation of RE forecast was discussed. In this context, the role of Qualified Coordinating Agency was discussed. Following key aspects were discussed:
      - QCAs to act as aggregators for all the RE generation in a particular geographic area
      - Geographical Areas to be defined within a Control Area
      - Any deviations witnessed with respect to a particular QCA would be distributed in accordance to the individual capacities
      - Two level forecasting to be done: By QCA and SLDC
      - Issue of Competition in QCA, generators will tend to get attached with larger capacity QCA
    - Planning of storage facilities
  - Roadmap to be defined in order to reduce the Technical Minimum of Thermal Generation to 40%
5. Representation by Suzlon Energy Ltd:  
The representatives from Suzlon emphasized on the following aspects:
  - Particular attention to be given to issue of estimating and arranging the balancing requirements. In this regard, RLDCs may be empowered to manage generation capacities

- Appropriate Compensation Mechanism must be defined for entities providing reserves
  - Standardized Protocol must be defined for communication/data sharing
  - RLDCs/REMCs to be made responsible for forecasting
  - Force majeure Issue related to PPA: Sudden closure of Wind Farms requested by MoD along the border
6. Representation by SB Energy Private Limited:  
The representatives from SB Energy discussed the following aspects:
- Issue of Forecasting Accuracy in case of Solar Hybrid plants
  - Constraint in the PPA issued by SECI: Excess Generation due to RE being curtailed
  - Issue of ramping down in case of wind
7. Other Issues discussed:
- Need for introduction of Frequency Control Code
  - Review of Protection Systems
  - Definition of COD for RE projects
  - Review of Gate Closure
  - Reactive Power Exchanges: Review of penalty/compensation
  - Need for Islanding Schemes at least for key areas
  - Grid Resilience during Force Majeure Events
  - Review of TTC/ATC methodology
  - Digitizing Communication in order to ensure transparent curtailment
  - Issue of Transmission Congestion: Providing data for Dynamic Simulation to CTU while planning
  - Payment to RE while participating in ancillary services(Banking down in case of High Frequency)
8. The Expert Group decided on the following action points:
- The minutes of the first meeting were confirmed.
  - The Group requested the industry representatives to submit their views within three weeks.
  - The Group requested POSOCO to submit their comments with regards to comparison with European Codes.
  - The Group requested representatives from Suzlon to submit a report based on their experience in Germany with regards to RE integration
  - The Group requested SB Energy to submit a report based on their international experience
  - Due to various time extension requests received, the Group decided to extend the timeline for submission of comments/suggestions till 12<sup>th</sup> July 2019 and also issue notice in this regard on the website of Commission.
  - The Group decided that the third and fourth meeting would be held on 1<sup>st</sup> July 2019 and 4<sup>th</sup> July 2019 at 2:30 pm respectively at CERC. Representatives of power exchanges, traders and some of the renewable generators would be

invited on 1<sup>st</sup> of July 2019 while Representatives from SLDCs from RE rich states and RLDCs would be invited for 4<sup>th</sup> July 2019.

- The following Chapters/Modules were finalized for introduction:
  - i. Introduction of REMC,
  - ii. Frequency Control Code,
  - iii. Cyber Security,
  - iv. Protection Mechanisms,
  - v. Resilience to outages,
  - vi. COD of Renewable generation,
  - vii. Frequency Control continuum
  - viii. Enforcing reserve requirement,
  - ix. Post Event Analysis
- The Expert Group decided to review the issues related to TTC-ATC and the necessary treatment in Grid Code.
- Report on QCA would be shared by CERC to members.
- Expert Group to deliberate on aggregation of RE Forecasting (Control Area level, Pooling Station level) and review of forecasting error in case of renewable plants and hybrid wind-solar renewable generating stations.

The meeting ended with a vote of thanks to the Chair.